### A NEW SPECIES OF AGANIPPE FROM KANGAROO ISLAND

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### [Read July 11, 1919.]

#### PLATE XII.

#### AGANIPPE RAINBOWI, n. sp.

Q. Described from living specimen. Cephalo-thorax, 5 mm. long, 45 mm. broad.

Cephalo-thorax:—Obovate, nearly as broad as long, black or very dark brown, shining, entirely devoid of hairs except two or three stiff ones between the eyes.

Pars cephalica:-Elevated, arched, distinct segmental groove.

Ocular area:--Twice as broad as long, raised, arched, and provided with bristles.

 $\overline{Clypeus}$ :—Narrow, sinuate, sloping forward, weakly indented at middle.

Pars thoracica:—Broad, fully curved at sides, sloping backwards, well-marked radial grooves.

Fovea:—Deep, short, procurved.

Marginal band:-Hardly sinuate, bare of hairs.

Eyes:—Front row very slightly recurved, the laterals equal in size or slightly larger than medians, are elevated on black bases, looking forwards and outwards. The medians, separated by rather more than their diameter from the laterals, are not elevated, and are separated from each other by one-half the diameter of a median eye. Posterior row procurved. The laterals are the larger, nearly equal in size to the antero laterals. They also are raised on elevated bases, looking backwards and outwards. The medians are small and not elevated, their inner border is convex, and their flat outer border is in contact with the base of the corresponding postero lateral. The distance between the postero medians is exactly that of the extreme outward limit of the antero medians.

Legs:—Similar in colour to thorax; relative lengths, 4, 1, 2, 3; the two anterior pairs armed with long black spines, 5 metatarsi, and tarsi of 1 and 2 scopulate. Tarsal claws well developed. Two posterior pairs less robust, clothed with long stiff hairs and an occasional spine.

Palpi:—Concolourous with legs, robust, clothed with stiff hairs and bristles, tarsal joint scopulate.

Falces:—Black, shining, well domed, forward. Teeth of rastellum minute, shining, brown. Fang long, curved.

*Maxillae*:—Warm, yellowish-brown, furnished over greater part with regularly-set short dark spines, and sparsi thin black hairs. Inner-margin clothed with dense long silky hairs or reddish-brown colour.

Labium:—About as broad as long, beset with about 20 short stout black spines in its central area.

Sternum:—Pale yellowish - brown, slightly arched, sparsely clothed with black hairs; broadly pyriform with well-marked margin. Posterior sigilla, circular away from margin.

Abdomen:—Dark brown, short, as broad as long, densely clothed with dark hairs, raised on papillary bases, giving the surface a markedly shagreened appearance. No dorsal design apparent. There are two well-marked circular lateral pits near the anterior margin of the dorsum, which slightly overhangs the cephalo-thorax. Under-surface lighter towards centre, clothed as on upper-surface with hairs arranged more or less in transverse lines. Posterior lung sacs large, transversely ovate, sparsely clothed with fine curved black hairs.

Spinnerets:—Concolourous, superior pair slightly longer than inferior pair and about half as broad at the base.

♂. Described from dried specimen. Cephalo-thorax, 4 mm. broad, 4 mm. long; abdomen, 4 mm. long.

Cephalo-thorax:--More circular than in the female, flatter, less elevated in front.

Fovea:-Short, procurved, radial markings indistinct.

Eye:—Formula identical with that of female, but eye area not bristled. Whole surface of thorax finely granular instead of polished, well-marked sinuate marginal border.

Legs:—More slender, lengths 4, 1, 2, 3; armature of strong spines, clothing less marked, no tibial mypophysis.

Palpi:—Brownish-black, no tibial apophysis, tibial joint large and inflated, unarmed, and sparsely clothed. Bulb concolourous, highly polished, stigma narrow, twisted, terminating in filiform style.

This is much the smallest species of Aganippe yet discovered. Several females and one male were collected in May, 1919, at American River, Kangaroo Island, South Australia. American River, so called, is really a deep bay nearly dividing Kangaroo Island in two.

The species was found close to the main settlement in rubbly clay banks, just above high-water mark, and at high tides the nests must be very close to, if not in actual contact, with the salt water. The nests are abundant and in places crowded together, so that a few cubic inches of clay will contain several nests.

The male, which unfortunately became dried, was in a nest like the females.

The largest nest taken is 6 cm. in total depth, straight, and densely lined. The aperture, which has a lumen of 8 mm., is closed by a stout, circular door with an attachment of one-fourth its circumference to the tube. The door is flat on the under-surface and roughly heaped up on the outersurface. The total width of door 15 mm. wide, 11 mm. from hinge to front. In one nest twenty young were found with the female, but in none were egg-cases found. Another nest contained the complete cocoon of a leaf-cutting hymenopter.

Apart from its small size, the characteristics of this species are the dense spiny armature of the anterior two pairs of ambulatory legs and the palpi.

Types 1 (male) and 2 (female) in Australian Museum, Sydney; 2 (female), co-type in South Australian Museum, Adelaide.

#### DESCRIPTION OF PLATE XII.

#### Aganippe rainbowi, n. sp.

- Fig. 1. Female, dorsal view.
  - ,, 2. Female, ventral view.
  - ,, 3. Male, palpus, lateral view.
  - ,, 4. Nest, closed.
  - ,, 5. Nest, open.

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